

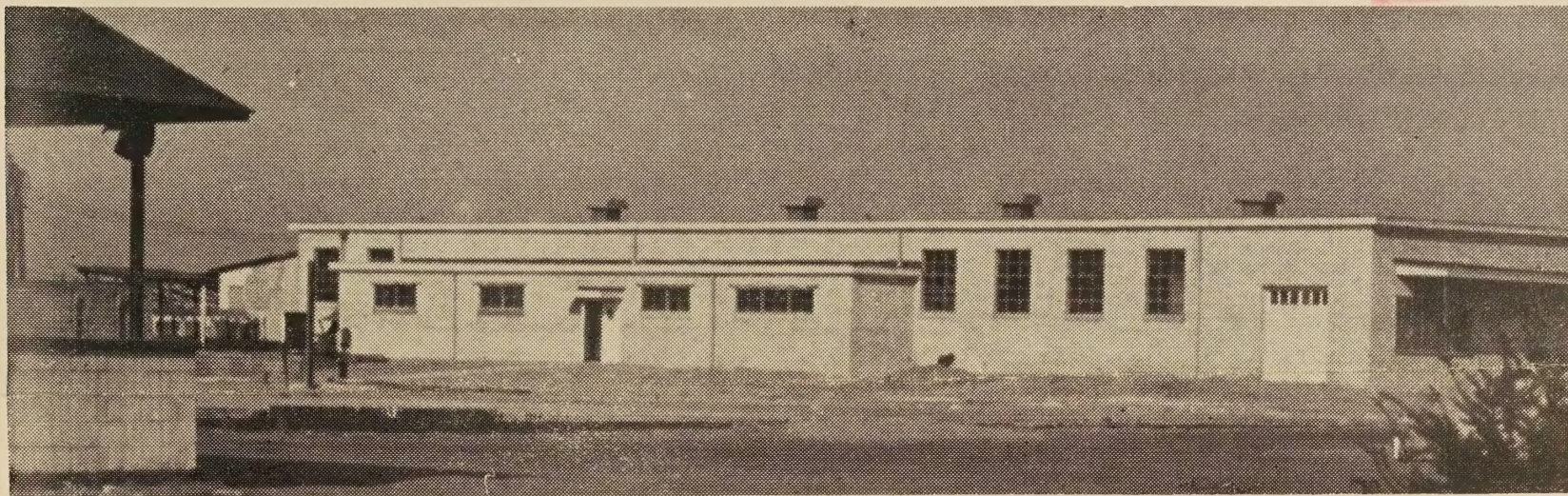
RESEARCH AND REPORTS

For the American Tomato Industry

PUBLISHED PERIODICALLY BY FRANCIS C. STOKES COMPANY, VINCENTOWN, NEW JERSEY

No. 12

January 20, 1956



The new factory and tomato processing plant of the Francis C. Stokes Company at Vincentown, N. J.

WITH PARDONABLE PRIDE

On December 7, 1955, at the Claridge Hotel, Atlantic City, the New Jersey State Horticultural Society held its Eighty-first Annual Meeting. As for many years Prof. Charles H. Nissley, Extension Specialist Vegetable Crops at the New Jersey Experiment Station, gave the report of the 1955 New Jersey Ten-Ton Tomato Club. We feel very strongly that to complete the announcement, the name and address of the winner should be accompanied by an identification of his variety and by the name of his processor. Such information is part of the records included in every other state. We would like to see them included in New Jersey and we take the liberty of printing them here. The presentation of awards was made by Mr. Leon April, President New Jersey Cannery Association. The full data is as follows:

Quantity Awards — 1st Prize: Joseph Hancock, Greenwich, N. J., 18.1 tons per acre. Rutgers variety. Processor, Hunt Foods, Inc.

2nd Prize: John G. Borton, Woodstown, N. J., 15.41 tons per acre. Queens variety. Processor, California Packing Corp.

Quality Awards — 1st Prize: Bernard Pinder and Theodore Simons, Vincentown, N. J., average grade 63%, 33%, 4% U.S. Grade. Processor, Francis C. Stokes Co.

2nd Prize: Carmine S. Cappola, Vincentown, N. J., variety Marglobe; average grade 61%, 35%, 4%. Processor, Francis C. Stokes Co.

FFA Winners — 1st Prize: Samuel DeSimone, Swedesboro, N. J., variety Improved Garden State. Processor, Campbell Soup Co.

2nd Prize: Vernon Gerber, Vincentown, N. J., variety Marglobe. Processor, Francis C. Stokes Co.

ANOTHER PLEA FOR VINE RIPENED FRUIT

Very few vegetables equal the quality of a well-grown, vine-ripened tomato. Except for eight weeks in the summer few housewives have the good luck to be able to serve a high quality, favorable tomato. There is an increased movement toward vine-ripened tomatoes but the changeover is discouragingly slow. The marked exception, of course, are the wonderful tomatoes grown in greenhouses in the Central West, but their volume is restricted. The exceptions to this that we have noted are vine-ripened tomatoes grown in the vicinity of Fort Pierce, Florida, and Sancti Spiritus, Cuba, and Central California. If it can be done at these far away points, it can be done anywhere.

On February first the United Fruit and Vegetable Association at their meeting in New Orleans will hold a tomato package panel headed by Mr. Harry H. Price of Dallas, Texas. Again, a real opportunity is offered to push vine-ripened tomatoes to a higher level. The profitable green-wrap deal consistently allows too much fruit to go through the ripening rooms which has not reached the proper stage of maturity. The flavor of a tomato that is gathered before it has attained any color, just is not worth it. The tomato growers who can work out ways and means of gathering their fruit at a ripening stage will find a ready market. On a comparable basis they are bringing almost twice the money.

U.S.D.A. 1955 ANNUAL SUMMARY — TOMATOES FOR PROCESSING

The following is published through the courtesy of the Agricultural Marketing Service Crop Reporting Board. These two pages will bear close study.

It will be noted again that the farm value of tomatoes reached the staggering total of \$221,481,000.

Congratulations to California which produced processing fruit valued at \$45,560,000, and to Florida which produced tomatoes for the fresh market valued at \$56,187,000.

We suggest close study of all the figures, prices and production. Most of us can do better.

STATE	HARVESTED ACREAGE			YIELD PER ACRE			PRODUCTION			PRICE PER TON			VALUE		
	10-year average 1944-53	1954	1955	10-yr. avg. '44-53	1954	1955	10-year average 1944-53	1954	1955	10-yr. avg. '44-53	1954	1955	10-yr. avg. '44-53	1954	1955
	Acres			Tons (2,000 lbs.)			Tons (2,000 lbs.)			Dollars			1,000 Dollars		
New York	22,000	11,600	12,000	8.2	8.0	8.3	173,600	92,800	99,600	28.90	29.20	31.50	5,074	2,710	3,137
New Jersey.....	32,200	24,700	25,200	7.3	8.0	4.0	227,400	197,600	100,800	34.00	32.00	31.00	7,718	6,323	3,125
Pennsylvania	27,000	21,500	21,500	6.7	6.5	4.0	169,900	139,800	86,000	31.40	29.90	35.00	5,322	4,180	3,010
Ohio	24,900	13,600	15,800	8.0	11.9	11.7	193,200	161,800	184,900	26.10	26.50	26.30	5,083	4,288	4,863
Indiana	58,000	29,600	31,700	6.1	8.0	8.0	340,900	236,800	253,600	26.70	26.00	27.20	9,235	6,157	6,898
Illinois	11,500	10,100	9,200	7.1	11.0	10.1	80,800	111,100	92,900	27.00	30.60	31.10	2,216	3,400	2,889
Michigan	7,400	5,300	6,500	7.5	8.5	7.5	55,600	45,000	48,800	25.70	25.70	26.20	1,449	1,156	1,279
Wisconsin	1,300	1,100	900	6.9	6.4	9.5	8,500	7,000	8,600	26.00	30.00	29.80	220	210	256
Iowa	2,000	1,400	1,400	5.5	7.3	8.2	10,500	10,200	11,500	25.50	28.60	28.70	266	292	330
Missouri	6,700	200	1,600	2.6	2.0	2.4	18,400	400	3,800	31.00	25.00	26.10	575	10	99
Delaware	6,800	4,200	6,600	6.0	9.0	4.0	37,500	37,800	26,400	36.60	31.70	36.50	1,358	1,198	964
Maryland	33,900	13,600	14,900	5.6	7.2	4.6	177,900	97,900	68,500	35.40	34.50	31.60	6,160	3,378	2,165
Virginia	22,200	13,700	13,500	3.9	3.8	3.8	83,700	52,100	51,300	31.50	27.80	26.70	2,610	1,448	1,370
So. Carolina	2,000	800	1,200	1.7	2.0	2.5	3,300	1,600	3,000	30.60	27.00	25.50	97	43	76
Florida	4,200	7,800	8,400	4.1	5.3	6.6	18,200	41,690	55,840	27.40	23.60	24.50	500	985	1,368
Kentucky	2,500	1,100	1,200	3.1	3.2	4.0	7,400	3,500	4,800	27.50	26.00	26.00	198	91	125
Tennessee	3,100	400	600	2.6	2.0	2.0	8,000	800	1,200	28.70	26.00	26.00	219	21	31
Arkansas	9,100	1,000	2,800	2.5	1.5	2.5	23,100	1,500	7,000	31.20	25.00	26.20	704	38	183
Oklahoma	1,400	100	200	1.9	2.0	2.4	3,000	200	500	30.00	25.00	26.00	88	5	13
Texas	21,800	15,800	15,000	2.3	1.9	2.3	53,000	30,000	34,500	26.50	16.00	17.00	1,376	480	586
Colorado	3,600	3,400	3,300	7.4	7.1	6.3	26,400	24,100	20,800	24.20	23.90	23.10	643	576	480
Utah	7,200	5,300	6,500	10.5	9.3	9.9	75,200	49,300	64,400	24.10	20.80	22.50	1,824	1,025	1,449
California	111,300	79,500	115,000	12.0	16.9	17.3	1,297,600	1,343,600	1,989,500	26.10	20.40	22.90	34,380	27,409	45,560
Other States*	3,800	2,750	1,820	4.1	4.0	3.5	15,900	11,100	6,300	28.10	32.20	30.60	436	357	193
TOTAL															
ALL STATES	425,900	268,550	316,820	7.59	10.05	10.18	3,109,100	2,697,690	3,224,540	27.90	24.40	25.00	87,749	65,780	80,449

*Alabama, Arizona, Connecticut, Georgia, Idaho, Kansas, Louisiana, Minnesota, Mississippi, Nebraska, New Mexico, North Carolina, Oregon, Washington, and West Virginia.

VEGETABLES FOR COMMERCIAL PROCESSING — 1955

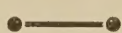
CROP	HARVESTED ACREAGE			YIELD per ACRE			PRODUCTION			PRICE PER TON			VALUE		
	10-year average 1944-53	1954	1955	10-yr. avg. '44-53	1954	1955	10-year average 1944-53	1954	1955	10-year average 1944-53	1954	1955	10-year average 1944-53	1954	1955
	Acres			Tons (2,000 lbs.)			Tons (2,000 lbs.)			Dollars			1,000 Dollars		
Asparagus	81,760	100,850	115,060	1.22	1.01	1.12	99,000	101,600	128,400	187.60	226.10	245.90	18,696	22,981	31,588
Beans, Lima	88,080	111,920	99,210	.80	.92	.88	70,900	103,000	87,300	140.60	149.30	142.60	10,210	15,382	12,455
Beans, Snap	125,410	154,000	138,690	1.90	2.22	2.24	236,800	341,400	310,100	112.40	119.20	110.00	26,659	40,704	34,114
Beets	16,250	15,570	17,520	8.69	9.43	7.96	143,100	146,800	139,400	20.60	20.70	20.50	2,946	3,036	2,853
Cabbage	17,810	15,630	13,250	10.40	13.31	12.13	189,100	208,100	160,700	14.10	12.00	18.20	2,582	2,499	2,927
Corn, Sweet	466,950	453,210	388,570	2.67	3.28	3.01	1,239,800	1,488,800	1,168,700	21.10	20.70	19.40	26,454	30,797	22,654
Cucumbers	127,330	140,210	126,000	1.97	2.17	2.48	250,600	304,600	312,100	60.50	59.20	54.10	15,171	18,025	16,900
Peas, Green	430,340	426,720	433,700	1.02	.94	1.05	438,200	400,100	454,200	87.40	92.20	89.50	38,288	36,907	40,658
Pimentos	17,460	31,300	26,500	1.17	.71	1.30	20,000	22,200	34,500	69.90	89.10	89.10	1,464	1,974	3,072
Spinach	36,800	24,910	29,460	3.08	3.67	4.18	113,400	91,300	123,000	46.20	38.30	38.10	5,235	3,495	4,691
Tomatoes	425,900	268,550	316,820	7.59	10.05	10.18	3,109,100	2,697,700	3,224,500	27.90	24.40	25.00	87,749	65,780	80,449
TOTAL															
11 CROPS	1,833,240	1,742,870	1,704,780	—	—	—	5,903,300	5,905,600	6,142,900	—	—	—	235,257	241,580	252,361

TOMATOES, COMMERCIAL CROP FOR FRESH MARKET — 1955

SEASONAL GROUP AND STATE	ACREAGE			YIELD PER ACRE			PRODUCTION			PRICE PER BUSHEL			VALUE		
	5-yr. avg. '49-53	1954	1955	5-yr. avg. '49-53	1954	1955	5-yr. avg. '49-53	1954	1955	5-yr. avg. '49-53	1954	1955	5-yr. avg. '49-53	1954	1955
	Acres			Bushels			1,000 Bushels			Dollars			1,000 Dollars		
<i>Winter:</i>															
Florida	13,660	17,400	16,700	192	210	305	2,625	3,654	5,094	5.11	4.55	4.90	13,041	16,626	24,961
<i>Early Spring:</i>															
Florida	20,740	24,000	22,300	181	155	225	3,735	3,720	5,018	4.55	4.40	4.25	17,000	15,519	21,326
Texas	31,240	35,000	34,000	64	70	60	2,012	2,450	2,040	2.29	2.05	1.75	4,546	5,022	3,570
California	3,740	4,500	4,900	278	260	255	1,040	1,170	1,250	4.83	5.80	5.60	5,084	6,786	7,000
Group Total	55,720	63,500	61,200	122	116	136	6,787	7,340	8,308	3.91	3.82	3.84	26,631	27,327	31,896
<i>Late Spring:</i>															
Texas	26,100	27,000	22,000	61	50	50	1,617	1,350	1,100	3.67	2.00	2.30	5,344	2,700	2,530
Louisiana	1,160	1,500	1,200	71	90	75	82	135	90	5.09	3.35	4.15	403	403	374
Mississippi	1,820	2,200	1,600	40	60	100	70	132	160	3.70	2.40	2.80	230	317	448
So. Carolina	3,860	5,500	6,000	64	75	75	248	412	450	3.85	2.70	3.20	999	1,112	1,440
Georgia	11,020	15,000	14,000	74	65	75	815	975	1,050	3.29	1.80	2.20	2,699	1,755	2,310
Group Total	43,960	51,200	44,800	64	59	64	2,832	3,004	2,850	3.59	2.11	2.49	9,675	6,336	7,102
<i>Early Summer:</i>															
California	7,520	10,200	12,000	289	295	155	2,183	3,009	1,860	3.80	3.50	3.75	8,351	10,532	6,975
Alabama	5,040	5,500	5,200	76	75	80	384	412	416	3.22	2.95	2.20	1,208	1,215	915
Arkansas	4,360	3,700	4,200	86	75	115	385	278	483	4.26	5.40	3.45	1,405	1,501	1,666
Tennessee	2,840	2,200	2,500	111	115	160	325	253	400	3.18	3.15	2.00	888	797	600
No. Carolina	2,520	2,600	2,600	78	80	85	196	208	221	3.21	3.10	2.70	621	645	597
Virginia	5,040	7,300	5,500	185	130	190	933	949	1,045	2.19	1.90	1.25	2,091	1,803	1,306
Kentucky	480	550	350	123	60	140	56	33	49	4.01	5.80	3.00	218	191	147
Illinois	1,070	850	750	100	90	105	107	76	79	5.41	6.50	4.95	552	494	391
Missouri	2,060	2,000	2,400	91	80	120	187	160	288	4.34	6.20	3.65	757	992	1,051
Ohio	1,260	1,300	1,400	206	180	225	260	234	315	5.42	6.30	3.65	1,414	1,474	1,095
Maryland	3,000	2,800	2,800	207	190	170	622	532	476	2.70	3.25	3.40	1,680	1,729	1,618
Delaware	560	500	550	171	180	145	95	90	80	2.48	3.40	3.30	233	306	264
Group Total	35,750	39,500	40,250	160	158	142	5,734	6,234	5,712	3.39	3.48	2.97	19,420	21,679	16,625
<i>Late Summer:</i>															
New Jersey	9,240	8,200	8,100	182	195	155	1,702	1,599	1,256	2.76	3.15	2.70	4,699	5,037	3,391
Washington	2,040	1,600	1,800	285	250	235	532	400	423	2.22	2.55	2.35	1,296	1,020	994
Oregon	1,140	1,000	700	274	220	220	307	220	154	2.98	3.10	2.85	914	682	439
Pennsylvania	2,960	3,400	3,500	204	180	160	601	612	560	2.00	2.50	2.60	1,205	1,530	1,456
Ohio	3,660	3,400	3,300	176	175	180	645	595	594	3.21	3.40	3.55	2,042	2,023	2,109
Indiana	3,880	3,900	3,400	131	125	130	508	488	442	3.27	4.65	4.45	1,604	2,269	1,967
Illinois	1,460	1,200	1,200	107	105	100	156	126	120	1.99	2.00	2.30	309	252	276
Iowa	490	450	450	124	90	125	61	40	56	2.03	2.75	2.50	122	110	140
Connecticut	1,740	1,900	1,800	264	290	250	459	551	450	4.06	3.55	4.50	1,849	1,956	2,025
Rhode Island	430	450	400	300	235	240	130	106	96	3.69	3.55	3.75	481	376	360
Massachusetts	1,720	1,600	1,600	297	300	310	511	480	496	3.99	3.60	4.15	2,044	1,728	2,058
New York	8,380	7,200	6,300	231	235	205	1,930	1,692	1,292	2.17	2.20	2.55	4,110	3,722	3,295
Michigan	7,560	7,500	7,900	170	180	170	1,283	1,350	1,343	2.77	2.85	2.75	3,564	3,848	3,693
Colorado	1,580	1,500	1,500	267	240	250	422	360	375	1.94	1.85	1.85	815	666	694
Utah	280	200	200	208	200	220	55	40	44	1.76	1.35	1.30	98	54	57
Alabama	2,440	2,100	2,100	51	45	65	125	94	136	3.04	3.25	2.75	373	306	374
Group Total	49,190	45,600	44,250	193	192	177	9,478	8,753	7,837	2.70	2.92	2.98	25,526	25,579	23,328
<i>Early Fall:</i>															
California	17,560	17,000	20,000	278	350	335	4,835	5,950	6,700	3.59	3.40	3.95	17,376	20,230	26,465
<i>Late Fall:</i>															
Texas	9,200	7,200	5,700	54	45	45	474	324	256	3.65	3.20	2.95	1,655	1,037	755
Florida	8,760	9,100	11,000	155	240	225	1,333	2,184	2,475	4.95	4.65	4.00	6,563	10,156	9,900
Group Total	17,960	16,300	16,700	104	154	164	1,806	2,508	2,731	3.59	4.46	3.90	8,218	11,193	10,655
ALL STATES	233,800	250,500	243,900	146	149	161	34,096	37,443	39,232	3.52	3.46	3.61	119,886	128,970	141,032

No Tomato Plant Is Better Than Its Root System . . .

A tomato is 92% water. California's remarkable yields (in 1955 they averaged 17.3 tons per acre), are due in part to their ability to apply irrigation water as wanted. Irrigation in tomato is certainly here to stay. We have seen it succeed in far flung places — in Culiacan on the West Coast of Mexico where the growers have four mountain rivers from the Sierra Madre. We have seen it in Sancti Spiritus, Cuba, 275 miles east of Havana, where the fifth hand of Manalucie was producing 14 oz. tomatoes. (We still think that 6 oz. fruit is ideal.) In every case additional fertilizer applications are necessary.



Can We Not All Respect a Signed Contract?

We admit that 1955 was not the best tomato year. We all shared plenty of trouble, but regardless of difficulties, we make another plea that a contract may stand as a contract. It is a matter of common experience that where the contract system breaks, the tomato industry in that area goes to pieces and is eventually abandoned.

On one day in the 1955 season, 17 loads of tomatoes were taken from a given area in New Jersey. All 17 were contract tomatoes but only one load was delivered on the terms of the contract. Again we make a plea that a contract is a contract and should be inviolate.



Prof. John T. Kitchin Reports at the Atlantic City Meeting

"Studies at New Brunswick reveal that if Rutgers tomatoes bloom during the first half of July, about 56 days are required for the resulting fruit to reach maturity. If anthesis occurs during the first half of August about 62 to 65 days are required. With few exceptions, flowers which open in August, mature their fruit in October after most New Jersey tomato processors have stopped accepting ripe tomatoes."

These studies indicate that early set fruits will give the most satisfactory yields, perhaps starting by April 20th.

Stokes Blue List 1956 Prices For Market Gardeners and Greenhouse Men

	Garden Packet	Trade Packet	One Ounce	One Pound
Valiant	\$.25	\$.40	\$1.25	\$6.40
Stokesdale .....	.25	.40	1.00	6.40
Marglobe .....	.25	.40	1.00	6.40
Rutgers .....	.25	.40	1.00	6.40
Stokescross No. 1.....	.25	.50	1.50	8.40
Stokescross No. 4.....	.25	.50	1.50	8.40
Stokescross No. 5.....	.25	.50	1.50	8.40
Proving Ground				
Stocks of any of the above varieties.....	.25	1.00	5.00	—

Did You Know the Vital Importance of Temperature in Tomato Production?

The work of Dr. Frits Warmolt Went, Earhart Plant Research Laboratory, California Institute of Technology, Pasadena, will bear close study by the entire industry. Fundamentally his studies are along the line of adjusting the cultivation of plants to seemingly hostile conditions. He says, "We can look forward to an era when informed knowledge about weather responses of plants will make it possible to remove a number of climatic hazards which now beset us. Then agriculture will have progressed from an art to a technology. The importance of these developments loom so large in my mind that I am willing to predict the second half of the 20th Century will go down in history as the Agricultural Revolution."

It is now abundantly clear that tomato growers are often failing through no fault of their own, owing to the fact that, the average weather conditions in their area are utterly unsuited for the production of quality fruit in large quantities.

Rainfall should not exceed 4 inches per month. Blossom setting temperatures, optimum night temp. 65 degrees. Day temp. 60 to 70 degrees. Day temperatures should not exceed 75 degrees. The best fruit growth temperature is 63 degrees day temp. 53 degrees night temp. The finest aromatic flavor develops in a temperature of 58 to 68 degrees day, 50 to 63 degrees night. If your temperatures do not come within that range do not blame your failures on your seed sources or on your cultivation habits. Study all the growing factors before going into tomatoes.

Ideal soil temperature for the intake of nitrogen and phosphorus is 75 degrees F. This is especially important when the plant is young. It is the balance of potash and phosphorus that is necessary for fruit set. If you are not getting the best varieties of tomatoes, you are missing the boat.

Red color in tomatoes comes with high sugar transport and this is optimum at 65 degrees at night.

Tomato mosaic, which is the same organism as tobacco mosaic, is not passed on by smoke or ash, but it is the wet spit that spreads tobacco mosaic.